WHAT IS CLAIMED IS:

1.   A method for storage and retrieval of programs and data within a PLC system, the PLC system including a plurality of modules including a memory host module including a CPU and memory, at least one option module including a CPU and memory, a backplane interconnecting the memory host module and the option module, said method comprising the steps of:

    storing in the memory of the memory host module an operating program and data for the option module; and

    retrieving the operating program and data from the memory of the memory host module.

2.   A method according to Claim 1 further comprising the step of transferring the operating program and data for the option module from the memory of the memory host module to the option module memory via the backplane.

3.   A method according to Claim 1 further comprising the step of transferring the operating program and data for the option module from the memory of the option module to the memory host module via the backplane.

4.   A method according to Claim 1 wherein the memory host module is further configured with an external device interface, said method further comprising the step of transferring the operating program and data for the option module from an external device, through the memory host module, to the memory of the option module via the backplane.

5.   A method according to Claim 1 wherein the memory host module is further configured with an external device interface, said method further comprising the step of transferring the operating program and data for the option module from an external device to the memory of the memory host module via the external device interface.

6.   A method according to Claim 1 wherein the memory host module further configured with an interface to an external device, said method further comprising the step of transferring the operating program and data for the option module from the option module through the memory host module via the backplane, to an external device.

7. A method according to Claim 1 wherein the memory host module further configured with an external device interface, said method further comprising the step of transferring the operating program and data for the option module from the memory of the memory host module to an external device via the external device interface.

8. A method according to Claim 1 wherein the memory host module further configured with an external device interface, the at least one option module further configured with an external device interface, said method further comprising the step of transferring the operating program and data for the option module from the memory of the memory host module to the memory of the option module via the external device interfaces.

9. A method according to Claim 1, wherein the memory host module further configured with an external device interface, the at least one option module further configured with an external device interface, said method further comprising the step of transferring the operating program and data for the option module from the memory of the option module to the memory of the memory host module via the external device interfaces.

10. A memory host for a programmable logic controller (PLC) system, the system comprising at least one option module further comprising an option module memory, said memory host comprising a memory, a central processing unit (CPU), and a backplane interface, said memory host configured to:

store an operating program and data in said memory for the at least one option module; and

retrieve the operating program and data from said memory.

11. A memory host in accordance with Claim 10 further configured to selectively transfer the operating program and data stored in said memory to the option module memory via said backplane interface.

12. A memory host in accordance with Claim 10 further configured to automatically transfer the operating program and data stored in said memory to the option module memory via said backplane interface.

13. A memory host in accordance with Claim 10 further configured with means to transfer the operating program and data stored in said memory to the option module memory via said backplane interface.

14. A memory host in accordance with Claim 10 further configured to
5 retrieve the operating program and data from the option module memory via said backplane interface for storage in said memory.

15. A memory host in accordance with Claim 10 further configured with means to retrieve the operating program and data from the option module memory via said backplane interface for storage in said memory.

10 16. A memory host in accordance with Claim 10 further comprising an external device interface adapted to be connected to an external device, and further configured to transfer the operating programs and data from the external device to said memory via said external interface device.

17. A memory host in accordance with Claim 16 wherein said external
15 device interface is a serial interface.

18. A memory host in accordance with Claim 16 further configured to transfer the operating program and data from the external device via the external interface device to the option module memory via said backplane interface.

19. A memory host in accordance with Claim 16 further configured to
20 transfer the operating programs and data from the external device via the external interface device to said memory.

20. A memory host in accordance with Claim 16 further configured to transfer the operating program and data from the option module memory via said backplane interface to the external device via the external interface device.

25 21. A memory host in accordance with Claim 16 further configured to transfer the operating program and data from said memory to the external device via the external interface device.

22. A memory host in accordance with Claim 16 further configured to transfer the operating program and data from the memory via the external device
30 interface to an option module that further comprises an external interface device.

23.   A memory host in accordance with Claim 16 further configured to transfer the operating program and data from an option module that further comprises an external interface device to said memory via the external interface device.

24.   A memory host in accordance with Claim 10 wherein said memory comprises flash memory.